REMARKS

Reconsideration and allowance of this application are respectfully requested. Claims 1-5, 9-12 and 22-24 are cancelled, and claims 29-31 are added. Claims 6-8, 13-21 and 25-28 remain in this application as amended herein. Accordingly, claims 6-8, 13-21 and 25-31 are submitted for the Examiner's reconsideration.

Claims 14-16 and 25-28 have been amended solely to provide proper antecedence and to have the claims better conform to the requirements of U.S. practice. None of these amendments is intended to narrow the scope of any of these claims, and no new matter has been added by these amendments.

In the Office Action, the Examiner rejected claims 6-7, 13, 16-20, 25 and 28 under 35 U.S.C. § 103(a) as being unpatentable over Kawakami (U.S. Patent No. 4,598,243) in view of the "Smart Battery Data Specification", revision 1.1, December 11, 1998. Applicants submit, however, that the claims are patentably distinguishable over cited the references.

The Kawakami patent describes a direct current power supply that may be powered by various types of batteries, such as Ni-Cd batteries (which have a substantially constant output voltage until shortly before the end of the life of the battery at which time the output voltage abruptly drops) or alkaline-manganese batteries (whose output voltage decreases linearly over time). A different shaped package is provided for each battery type so that when the package is loaded into the power supply, a position of a contact point of a switch changes *according to the type of battery used*. The power supply measures a voltage Es that is related to the output voltage of the battery, compares the voltage Es to a reference voltage Er that is set by the position of the switch, and activates an alarm when the voltage Es is lower than the reference voltage Er. The value of the reference voltage Er for each battery type

is set according to the output voltage behavior of that battery type so that the interval between the activation time of the alarm and the time that the output voltage decreases to the operational limit is the same regardless of the type of battery used. (*See* Figs. 1-8; col. 2, lines 17-36; col. 3, lines 1-9, 15-18 and 38-55; col. 3, line 60 - col. 4, line 19; col. 4, lines 35-55; col. 5, line 58 - col. 6, line 3; col. 6, lines 7-11 and 49-54; and col. 7, lines 9-13 and 40-47).

Thus, Kawakami describes correcting a low power warning voltage value *according to the battery type* used. The patent does not disclose or suggest correcting a low power warning voltage value using a correction value that is set based on a capacity value *indicating a number of cell structures in the battery*.

The Examiner nevertheless contends that the number of battery cells is known in Kawakami and argues that Fig. 4A shows a battery 10a having only one cell whereas Fig. 4B shows a battery 10b having four cells. However, Fig. 4A merely shows the shape of an insulating package 202 that, as Fig. 3 shows, contains *four batteries*, namely, the same number of batteries as in the package shown in Fig. 4B. Similarly, the packages shown in Figs. 5-8 each contain *four batteries*. (*See also* col. 4, lines 52-59; and col. 6, lines 3-7). The patent is not concerned with correcting the low power warning voltage value according to the number of cell structures in the battery.

The "Smart Battery Data Specification" describes a system host that communicates with a smart battery. The host obtains factual information from the smart battery, such as the battery temperature, pack voltage, charge/discharge current, or chemistry. Alternatively, the host obtains predictive data, such as the smart battery's remaining life, that the smart battery calculates from the factual information. (*See* p. 5, § 4.2.1). Though the publication describes that the smart

battery consists of a collection of cells (*see* p. 3, § 4.1), the host does not obtain *the number of cell structures* in the battery from the smart battery (*see* p. 17, § 5.1.1 - p. 35, § 5.1.31). The reference therefore does not disclose or suggest obtaining a capacity value *indicating a number of cell structures* in the battery.

Neither Kawakami nor the "Smart Battery Data Specification" discloses or suggests:

> obtaining means for obtaining a capacity value of a battery by communicating via a communications line with a battery pack that contains the battery, the battery providing power to the video camera, the capacity value indicating a number of cell structures in the battery

as called for in claim 6.

It follows that neither Kawakami nor the "Smart Battery Data Specification", whether taken alone or in combination, discloses or suggests the video camera defined in claim 6, and claim 6 is patentably distinct and unobvious over the cited references.

Claims 7, 13 and 16 depend from claim 6, and each further defines and limits the invention set out in the independent claim. It follows that each of claims 7, 13 and 16 likewise defines a combination that is patentably distinguishable over the cited art for at least the same reasons.

Independent claim 17 is directed to a video system that includes a video camera body having limitations similar to those set out in claim 6. Therefore, claim 17 is distinguishable over Kawakami and the "Smart Battery Data Specification" at least for the same reasons.

Claims 18-19 depend from claim 17 and, at least for the same reasons, are distinguishable over the cited references.

Independent claim 20 is directed to a method that includes limitations similar to those set out in claim 6. It follows that claim 20 is patentably distinguishable over Kawakami and the "Smart Battery Data Specification" for at least the same reasons.

Claims 25 and 28 depend from claim 20 and are distinguishable over the cited references at least for the same reasons.

The Examiner also rejected claims 8, 14-15, 21 and 26-27 under 35 U.S.C. § 103(a) as being unpatentable over Kawakami in view of the "Smart Battery Data Specification" and further in view of Lee (U.S. Patent No. 6,157,169). It is submitted, however, that the claims are patentably distinguishable over the references.

Claims 8 and 14-15 depend from claim 6, and claims 21 and 26-27 depend from claim 20. Therefore, each of claims 8, 14-15, 21 and 26-27 are distinguishable over Kawakami and the "Smart Battery Data Specification" for at least the same reasons.

The Lee patent describes a battery monitoring system that detects the terminal voltage and the load current of a battery. The system then calculates the battery residual capacity based on the detected terminal voltage and calculates the predicted remaining operating time based on the detected load current. The battery monitoring system then corrects the battery residual capacity based on variations in the battery temperature, the self-discharge of the battery over time, or the load current. (*See* Figs. 7, 9 and 10; col. 4, lines 5-53; and col. 7, line 10 - col. 8, line 9). The patent does not disclose or suggest obtaining a capacity value of a battery indicating *a number of cell structures in the battery* and therefore does not address the deficiencies of Kawakami and the "Smart Battery Data Specification".

Accordingly, the withdrawal of the rejections under 35 U.S.C. § 103 is respectfully requested.

New claim 29 depends from page 6, new claim 30 depends from claim 17, and new claim 31 depends from claim 20. Therefore, each of claims 29-31 is distinguishable over the cited references for at least the same reason. Each of the new claims includes limitations similar to those previously called for in the independent claims and is similarly supported.

As it is believed that all of the rejections set forth in the Official Action have been fully met, favorable reconsideration and allowance are earnestly solicited. If, however, for any reason the Examiner does not believe that such action can be taken at this time, it is respectfully requested that the Examiner telephone applicant's attorney at (908) 654-5000 in order to overcome any additional objections which the Examiner might have.

If there are any additional charges in connection with this requested amendment, the Examiner is authorized to charge Deposit Account No. 12-1095 therefor.

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Respectfully submitted,

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